Study of Women's Health in USA

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Is health care coverage significant on Women's Health in USA?

- The purpose of this study is to explore some of the different variables that influence the women's health deterioration in the United States. The study will seek to answer the question, does health coverage play a significant role in the deterioration in women's health? Also, is there a significant difference between the health care coverage and the other behavioral aspects which are obesity, smoking and alcohol consumption?

Variables

Dependent Variable	Values
OVERHLT10 (overall health)	1=Excellent 2=Very Good 3=Good 4=Fair 5=Poor

Variables

Independent Variables	Values
SMOKERE10 Whether or not smoking regularly	1=No 2=Yes
ALCHL2410 Whether or not drink daily	1=No 2=Yes
EXERCIS10 Whether or not exercise daily	1=No 2=Yes
OTHHAR10 Whether or not taking medication for heart disease	1=No 2=Yes
INSURAN10 Whether or not have insurance	1=No 2=Yes -1=Not Applicable
BMI	Underweight=BMI10<18.5 Healthy=BMI10>=18.5 & BMI10<24.9 Overweight= BMI10>=24.9 & BMI10<29.9 Obese= BMI10>=29.9

Variables Summary

Overall health	Insurance doesn't cover			
	N/A	No	Yes	Total
Excellent	58	9	2	69
Very good	144	19	7	170
Good	109	14	7	130
Fair	45	7	6	58
Poor	5	1	1	7
Total	361	50	23	434

Pearson chi2(8) = 5.7299 Pr = 0.677

Overall health	Smoked regularly since last visit		
	No	Yes	Total
Excellent	63	6	69
Very good	159	11	170
Good	120	10	130
Fair	53	5	58
Poor	6	1	7
Total	401	33	434

Pearson chi2(4) = 0.9595 Pr = 0.916

Overall health	Alcohol in Last 24 hrs		
	No	Yes	Total
Excellent	53	16	69
Very good	128	42	170
Good	112	18	130
Fair	51	7	58
Poor	7	0	7
Total	351	83	434

Pearson chi2(4) = 10.0244 Pr = 0.040

Overall health	Exercise		
	No	Yes	Total
Excellent	6	63	69
Very good	22	148	170
Good	21	109	130
Fair	19	39	58
Poor	0	7	7
Total	68	366	434

Pearson chi2(4) = 17.6403 Pr = 0.001

Variables Summary

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. tab OVERHLT10 OTHHAR10, chi2 // the relationship is insig
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Overall health	Other - Heart No	Yes	Total
Excellent	58	11	69
Very good	150	20	170
Good	115	15	130
Fair	56	2	58
Poor	6	1	7
Total	385	49	434

Pearson chi2(4) = 5.1609 Pr = 0.271

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. sum BMI10
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Variable	Obs	Mean	Std. Dev.	Min	Max
BMI10	434	27.48877	6.739123	16.61984	50.987

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. table OVERHLT10, con(mean BMI10 sd BMI10) // the relationship is sig
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Overall health	mean(BMI10)	sd(BMI10)
Excellent	25.476056	5.076033
Very good	26.720142	5.547345
Good	29.357157	7.568786
Fair	27.487093	8.300228
Poor	31.310205	8.750173

Regression Summary for Excellent health

	(1) OVERHLT10	(2) OVERHLT10	(3) OVERHLT10	(4) OVERHLT10	(5) OVERHLT10
Excellent					
INSURAN10	-0.0395	0.0878	0.102	0.125	0.119
	(0.175)	(0.181)	(0.182)	(0.183)	(0.184)
SMOKERE10		-0.101	-0.0170	0.0799	0.0627
		(0.557)	(0.561)	(0.565)	(0.582)
ALCHL2410		0.561	0.572	0.618	0.537
		(0.395)	(0.397)	(0.399)	(0.402)
BMI10		-0.0930***	-0.0906***		
		(0.0260)	(0.0264)		
EXERCIS10			0.503	0.501	1.200
			(0.504)	(0.505)	(0.854)
OTHHAR10			0.340	0.342	0.324
			(0.440)	(0.444)	(0.446)
overweight				-0.598	5.054*
				(0.374)	(2.869)
obese				-0.982**	-6.199**
				(0.447)	(3.157)
underweight				-1.282	-31.72
				(1.150)	(8862.9)
EXERObese					-2.957**
					(1.475)
EXERObese					2.736*
					(1.632)
EXERunde					15.48
					(4431.5)
_cons	-0.659***	1.397	-0.0945	-2.077	-3.278*
	(0.186)	(1.031)	(1.566)	(1.360)	(1.880)

Regression Summary for V.Good Health

Very_good					
INSURAN10	-0.0406	0.0524	0.0551	0.0594	0.0556
	(0.136)	(0.139)	(0.139)	(0.141)	(0.142)
SMOKERE10		-0.432	-0.417	-0.346	-0.338
		(0.468)	(0.471)	(0.473)	(0.493)
ALCHL2410		0.700**	0.699**	0.731**	0.655**
		(0.319)	(0.320)	(0.321)	(0.325)
BMI10		-0.0554***	-0.0549***		
		(0.0178)	(0.0179)		
EXERCIS10			0.0929	0.0994	0.684
			(0.342)	(0.343)	(0.619)
OTHHAR10			0.0188	0.0379	0.0264
			(0.371)	(0.373)	(0.374)
overweight				-0.177	4.661*
				(0.301)	(2.438)
obese				-0.724**	-4.773**
				(0.309)	(2.349)
underweight				-0.915	-32.29
				(0.801)	(5625.8)
EXEROverweight					-2.535**
					(1.250)
EXERObese					2.123*
					(1.210)
EXERUnderweight					15.96
					(2812.9)
_cons	0.242*	1.481*	1.260	-0.0544	-1.066
	(0.145)	(0.805)	(1.170)	(1.010)	(1.387)

Summary Regression for Fair Health

Fair INSURAN10	0.194	0.238	0.202	0.234	0.234
	(0.163)	(0.167)	(0.170)	(0.174)	(0.176)
SMOKERE10		0.0659	-0.103	0.0464	0.149
		(0.583)	(0.601)	(0.601)	(0.614)
ALCHL2410		-0.173	-0.194	-0.155	-0.200
		(0.485)	(0.491)	(0.495)	(0.500)
BMI10		-0.0434*	-0.0523**		
		(0.0238)	(0.0242)		
EXERCIS10			-0.974**	-0.970**	-0.764
			(0.382)	(0.388)	(0.593)
OTHHAR10			-1.265	-1.298*	-1.297*
			(0.777)	(0.782)	(0.783)
overweight				-1.456***	0.293
				(0.486)	(3.079)
obese				0.225	-1.009
				(0.512)	(3.050)
underweight				-1.406	-36.06
				(1.166)	(9663.2)
EXEROverweight					-0.842
					(1.605)
EXERObese					0.553
					(1.607)
EXERunderweight					17.85
					(4831.6)
_cons	-0.702***	0.676	4.184***	3.284**	2.822*
	(0.179)	(1.071)	(1.598)	(1.377)	(1.580)

Summary Regression for Poor Health

Poor INSURAN 10	0.335	0.264	0.298	0.275	0.272
	(0.351)	(0.361)	(0.368)	(0.377)	(0.377)
SMOKER E10		0.945	1.094	1.061	1.075
		(1.156)	(1.164)	(1.173)	(1.176)
ALCHL24 10		-12.65	-12.62	-14.14	-13.87
		(505.2)	(491.1)	(998.8)	(851.6)
BMI10		0.0282 (0.0506)	0.0357 (0.0521)		
EXERCIS1 0			13.28	14.77	15.04
			(585.9)	(1238.5)	(2861.3)
OTHHAR1 0			0.0503	-0.00600	-0.00988
			(1.126)	(1.126)	(1.126)
overweight				-0.603 (1.258)	4.767 (7325.7)
obese				0.945 (1.150)	-5.312 (6096.3)
underweigh t				-14.33	9.194
				(3470.0)	(26031.0)
EXEROver weight					-2.756
					(3662.8)
EXERObes e					3.183
					(3048.2)
EXERunde rweight					-11.61
					(13382.1)
_cons	-2.765*** (0.405)	8.099 (505.2)	-18.73 (1270.5)	-19.03 (2670.7)	-19.79 (5785.6)
N	434	434	434	434	434
R^2					

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Conclusion

- Health insurance turned out to be insignificant for women's health for this data set. In stead, Weight was the most significant factor for most stages of overall health.
- The interactions for exercise and overweight is sig for excellent health and very good health. Alcohol also played a significant factor in Very good health.
- Overweight was the significant factor for fair health. No interactions between exercise and weight was significant.
- No factor was significant in determining poor health.
- Conclusion, lifestyle factors, like alcohol, exercise and most weight were significant to determine the status of women's health and availability of health insurance